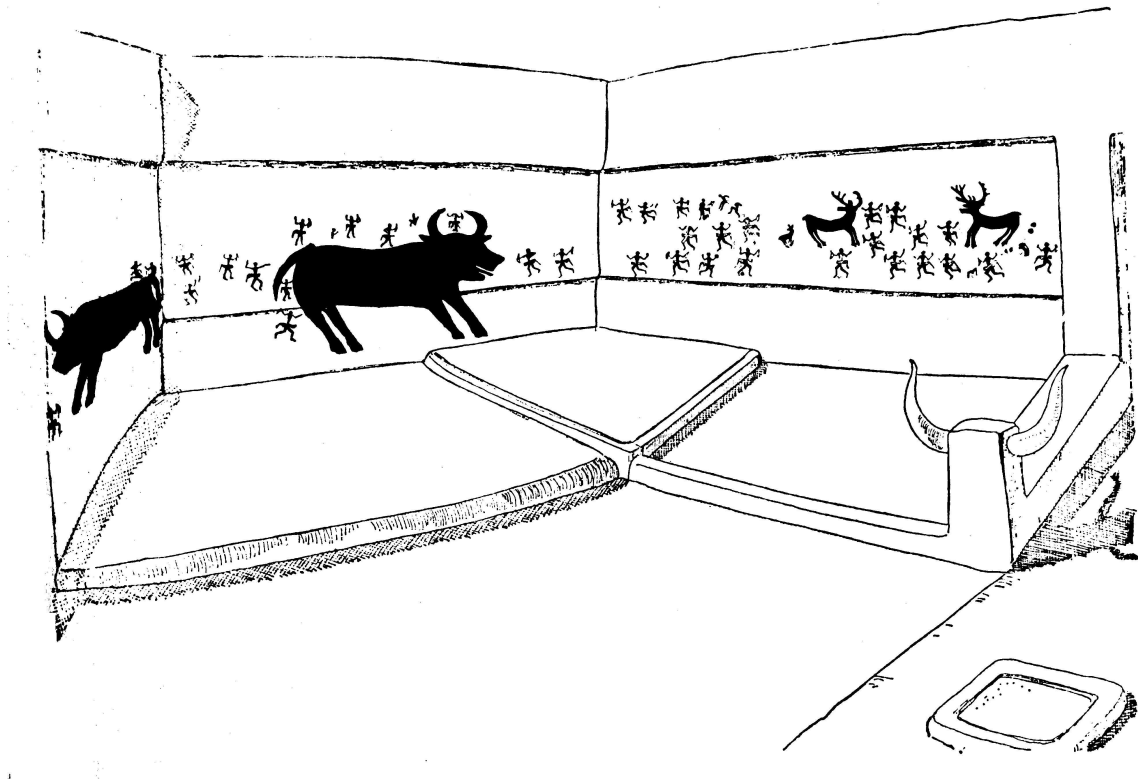


I. ÇATALHÖYÜK BULL-HUNT MURAL



Entertaining the hypothesis that the inhabitants of Çatalhöyük possibly modelled their iconography on the lunar cycle, the sketch of a previously identified “shrine-room” – reproduced on page 31 of *The Archaeology of Mesopotamia* by Seton Lloyd, 1978 – illustrates how uniformly its details conform to the complexities of lunar measure.

The ‘bull-hunt mural’ extends, appropriately, across three panels. The first panel shows a bull facing left, with a scorpion-man confronting it head-on & two more at its tail. This represents the old lunation which has passed, followed by three days & two nights of darkness before the new lunation emerges. The bull faces left because waning crescent – epitomizing the lapsed lunation, as its terminal phase – resembles the raised left arm when curved.

In effect, the three scorpion-men are attempting to ‘turn’ the bull, because when the waxing crescent of the new lunation emerges on the third night, it will face in the opposite direction to that of the waning crescent of the preceding lunation. The bull’s tail thereby assumes the appropriate shape & orientation of the waxing crescent of a new lunation, whose ‘delayed visibility’ is emphasized by the third scorpion-man touching it – highlighting ‘the third day of the cycle’ when waxing crescent finally emerges. He is also alone among the three, facing in the bull’s direction. His touch implies that the new lunation has at last become palpable, after two dark nights without a phase on high.

The second panel shows a bull facing right – in accordance with the ‘direction’ of the new lunation, whose initial phase (waxing crescent) resembles the right arm curved – with 14 scorpion-men surrounding it. This panel represents the waxing arc of the new lunation, which comprises 14 visible phases from crescent (on night 3) to second full moon (on night 16). The right bull’s open mouth signifies that it is ‘active’, unlike the left.

The six scorpion-men behind the second bull represent the six additional concave phases (beyond waxing crescent) comprising the concave quarter of the waxing arc, which terminates with waxing half-moon (on night 9). They are lower than the bull’s back, to signify that concave phases don’t ‘rise high enough’ (*think ‘dough’*) to exceed the line of bisection conspicuous in the half-moon (dividing the ‘head’ of the arc from its ‘foot’).

The six scorpion-men atop the bull represent the number of convex phases ‘back’ of, or preceding first full moon (which rises on night 15). Thus the twelfth scorpion-man on the central panel rests between the bull’s horns, which together trace the outline of a circle simulating full moon. The twelve scorpion-men behind the bull’s front horn (on the central panel), together with the three on the first panel, produce the correct sum of 15 markers to accord with the first appearance of full moon (on the 15th night).

The two scorpion-men at the bull’s mouth represent the second full moon & first waning phase (on the 16th & 17th nights respectively). Accordingly, the scorpion-man nearest to the bull’s head (because he’s the last phase to ‘commune’ with the ‘active’ bull) is the only one on the panel whose bow is drawn – the 17th or first waning phase here characterized as executing the downfall of the lunation, with his arrow. Bows held aloft or aside in the hands of the others on the panel, in contrast, symbolize ‘the bow of the sky’ (a semicircle) traversed by each lunar phase in turn.

The third panel includes 13 scorpion-men in accordance with the remaining phases in the waning arc of the cycle. The bull is now absent because it has been shot – the 13 terminal phases represent its increasing nightly decay (until it completely disappears). These waning phases have been segregated on a separate panel because the lunation has turned again (in falling) – the direction of the panel thereby indicating ‘waning arc’ (in parallel with the first panel which also represented a dying or departed lunation).

The sum of scorpion-men across the three panels amounts to 30, in conformity with the number of phases in the lunation.

A complementary vignette which accompanies this ‘waning segment’ of the lunation mural, involves two facing deer with a fawn to their left, surrounded by 12 scorpion-men. This is a depiction of the 12.37 lunations in a solar year, with deer the embodiment of aggregate lunations (the tines of their antlers collecting cumulate phases). ‘Facing deer’ convey the impression of annual waxing & waning sequences, or solar-cycle ‘arcs’ (in this case, divided into eight seasonable or summery, & four unseasonable or wintry, moons).

All three deer are looking back toward the ‘waning segment’ of the preceding lunation mural, to invite association of the two scenes. While all but one of the scorpion-men in the deer scene likewise face it – the lone exception appearing to make his way off the

panel, to emphasize the *recurrent* aspect of complementary lunar compositions. In other words, the depictions of lunar & solar measure both encode *repeating* cycles.

The 'lunisolar vignette' is conjoined with the *waning* scene because the annual calendar was conceived to reside in the *underworld* realm of departed lunations. Its measure was clearly not an empirical one observable on high, but rather computational, relying on a record of aggregate observations (a submerged or interred sum of departed lunations).

The scorpion-man (like the Myrmidon), symbolizes both the 'computational' aspect of the mural (by employing 'men' rather than animals), & the apparently fatal proclivity of every lunar phase, which ends interred in the underworld following its night on high – like the nocturnal scorpion hiding in its hole by day. The scorpion's tail, which resembles lunar crescent when raised (at night while foraging), depends downward when receding into its day-long burrow (to escape the sun). And the erections of the apparently 'aroused' scorpion-men merely allegorize the 'rising' of lunar phases up into the sky.

The scorpion-men identify the mural as a paradigm, rather than measures specific to a certain month in history, through their scorpion association with the underworld – in which the vault or repository of accumulated observations was conceptually situated.

While I realize that a stylized sketch of a faded mural may not be entirely dependable, it conforms as it is, to far too many complexities & idiosyncracies of lunar cycle to attribute to sheer coincidence, or synthetic projection. Many comparable examples of lunar convergence treated in my books, support the model's widespread use throughout antiquity (including previously unsolved ancient mathematical puzzles consistently resolved through lunar measure; see V10 below, *The Lunar Basis of Myth & Symbol*, pp35–59). Which intimates that a lunar review of other art at Çatalhöyük (& elsewhere) may not only prove insightful but ultimately indispensable.

II. ANCIENT NIGHTLY LUNAR PHASE COUNT THROUGH 29.5 DAYS

incorporating 7 empirically distinguishable, & 20 indistinguishable, visible phases

1-2 (distinguishable on sight)	2 dark nights with no moon visible (counted as 3 days plus 2 nights)
3 (distinguishable)	WAXING CRESCENT
4-8	5 intermediate indistinguishable concave waxing phases
9 (distinguishable)	WAXING HALF-MOON
10-14	5 intermediate indistinguishable convex waxing phases
15 (distinguishable)	FIRST FULL MOON
16 (distinguishable)	SECOND FULL MOON
17 (distinguishable)	FIRST WANING PHASE
18-22	5 intermediate indistinguishable convex waning phases
23 (distinguishable)	WANING HALF-MOON
24-28	5 intermediate indistinguishable concave waning phases
29 (distinguishable)	WANING CRESCENT

Greater detail is provided on pages 8 through 11 of *The Lunar Basis of Myth & Symbol* (link appended below).

Note that the modern division of lunar cycle – into four principal & four intermediate phases – represents an astronomical rather than an empirical construct, with the two gibbous points in the cycle established mathematically. Further, the ancient empirical measure of two apparent full moons & two dark nights in a single lunation, which seem to contradict the astronomical evidence, are in fact confirmed by the duration of the respective intervals of ‘darkness’ & ‘full light’.

III. THE LEOPARD PUZZLE

With regard to the ‘puzzle of the leopard’ at Çatalhöyük – leopards apparently focal to the symbolism, yet a puzzling absence of their remains on site – solutions appear to have been sought primarily on the premise that the iconography reflects behaviour.

While conventionally regarded as ‘naturalistically representative’, animal symbolism may also be ‘allegorically representative’ (adding another degree of abstraction: an animal image representing ‘something’, in reference to ‘something else’). While the behavioural fact that ‘leopards climb trees’ can be shown to have been significant in the employment of the large cat as an appropriate referent, the evidence reveals that it was its ‘spots’ which comprised the essential association (*see* Section IV: D).

To interpret figures in an allegorical context, one must first identify that hypothetical ‘something else’ (or model) which the figures refer to. And a previously untested model which effectively accommodates the complexity of ancient iconography, arises in the lunar cycle.

In light of the fact that a satisfactory solution to the leopard problem has yet to emerge, those open to untested hypotheses will also find that ‘lunar measure’ consistently resolves an unexpected number of contingent questions in addition to the puzzle at hand – increasing the plausibility of an allegorical lunar solution.

An impediment to scholarly consideration of this ‘metrical’ (in contrast to a ‘ritual’) solution, has long been the generally unrecognized ‘catalogue of disparate lunar measures’ comprising a lunar cycle – each hypothetically requiring a distinct symbol.

Modern astronomers, for instance, perpetuate the offhand belief that a grasp of lunar cycle presented little difficulty for ancient observers. Yet this is neither borne out by the evidence, nor certainly the complexity involved in understanding lunar motion (which was only achieved for the first time in 1919 – Ernest Brown’s historic equations of lunar mechanics involving a sobering 1500 variables).

Below is a table of these lunar distinctions, incorporating a parallel ‘lexicon of figures’ which represented them: figurative associations which consistently clarify otherwise enigmatic ancient texts & compositions (*see* Section IV).

It follows that if ancient observers were intent on preserving detailed figurative information about the lunar cycle for their heirs, it would be critical for each of these ‘cycle distinctions’ to retain its own proprietary figure or patent quality – distinct computational referents functioning like the familiar geometrical interface ‘ π ’ (which categorically codifies ‘a mathematical measure’ in reference to ‘the geometrical relation between diameter & circumference of a circle’).

While *superficially* incongruous, a comparison of the figure of the leopard (employed as a second-degree abstraction) with the symbol 'π', is implicit in the discovery which led to the hypothesis of 'animal figures as lunar referents': the previously undetected conformity between 'key letters of the Alphabet' (including π) & their equivalent 'phase-forms' & order in the lunar cycle.

Briefly, key characters in the putative original Alphabet both trace the shape of, & fall in the same place in their sequence as, focal phases of the moon: *eg*, our third letter 'C' (*gimel, gamma*) resembles waxing crescent which appears on the third night of the lunation; the ninth letter *teth* or *theta* resembles the half-moon which falls on the ninth night; & the 15th letter O (*omicron, ayin*) accords with the full moon which appears on the 15th night; *etc.* A succinct outline of this discovery is freely accessible at Internet Archive: [<https://archive.org/details/TheLunarBasisOfMythAndSymbol>].

As the outline shows, such animal symbols – which recur throughout numerous cultures across an untold expanse of time – consistently (& predictably) unlock apparently unrelated mysteries, when interpreted as lunar measures. As my elucidation of the so-called 'bull-hunt mural' at Çatalhöyük illustrates, a detailed understanding of lunar cycle allows one to recognize that the unexpected conformity of so many compositions to 'lunar measure', cannot have been accidental.

Or, in other words, it would appear that a previously unsuspected allegorical 'lexicon of lunar figures' underpins prehistoric culture – providing the key to an unexamined trove of ancient observations.

IV. ANCIENT LUNAR ICONOGRAPHY (with explanations appended)

[A] complete lunation (nights 1–29)	goddess; plumed serpent
[B] cardinal lunation (aggregated)	deer (herding)
[C] visible lunation (3–29)	bull (forward horns)
[D] lunar arcs (1–15) (16–29)	cat (spotted: 3–29); (black: 1–2)
[E] lunar quarters (1–9) (10–16) (17–22) (23–29)	horse
[F] distinguishable phases (3,9,15,16,17,23,29)	white (<i>aka</i> focal phases)
[G] indistinguishable phases	dappled
[H] waxing phases (3–16)	erect penis (signifying ‘rising’)
[J] waning phases (17–29)	red (blood, dying)
[K] concave waxing phases (3–9)	bird (white)
[L] concave waning phases (23–29)	vulture (dark with red head)
[M] convex phases (10–22)	turtle
[N] extinguished phases	headless man (with erection)
[O] crescents (3, 29)	boar (3); rhino (29)
[P] generative tetrad (29, 1, 2, 3)	ibex or goat (backward horns)
[Q] underworld phases (1–2)	twin goddesses
[R] dark interval (1–2)	trident (ideally inverted)
[S] island phases (3–29)	Thrinacia
[T] two islands (3–14) (17–29)	Dionysus [<i>dio</i> , “two”; <i>nísos</i> , “island”]
[U] extended ‘great-year’ cycles	giants
[V] intercalary days	sacrificial animals
[W] variable phase (29/30)	Adam’s rib; Hades/Pluto

IVb. ANCIENT LUNAR ICONOGRAPHY EXPLAINED

[A] The complete lunation was represented by two different figures: the goddess, in the earlier period; & plumed serpent, later.

The goddess incorporated two dominant aspects: [1] as the embodiment of the two dark nights, she represented the earth-mother; & [2] as the lunar goddess she gave birth not only to the lunation but also each waxing phase. So-called Venus figurines represented her fecundity through corporal exaggeration: with pronounced buttocks representing the two dark nights; pendulous breasts as twin full moons ('milky' white); beaded head as her brood of male phases; or facelessness to signify her absence on high. All phases of the visible portion of the lunation were considered male because the crescents resemble an erect penis, & phases rise into the sky like a penis when stimulated by the goddess.

The plumed serpent incorporated the prevailing characteristics of the opposing arcs of the cycle: waxing arc whose phases rise increasingly higher from the celestial sea (exhibiting more of the moon each night), which naturally epitomizes 'flight'; & waning arc whose phases grow progressively leaner by the night, as though being consumed by an underworld serpent (prefiguring interment, which intrudes into the serpent's lair).

The Mayan conception of *Quetzal-coatl* held the two conjoined; while the Egyptian correlative symbolized 'the opposing arcs' with distinct crowns – the white vulture crown of the *higher* Upper Nile, or *hedjet*, representing waxing arc (which gets whiter & higher by the night); & the red cobra crown of the *lower* Delta, or *deshret*, waning arc (reflecting the figurative blood of the dying or interred lunation).

[B] Deer represented cardinal lunations (*think* 'sums'). Antlers incorporate a sum of phases from a single lunation, waxing on one side & waning on the other. Herded & coupled, deer signified aggregate lunations (*cf*, *Lascaux Measures*: V₁ below, pp2–5).

[C] The bull, as noted, represented the visible portion of the cycle (nights 3 through 29). Its horns curve forward signifying an advancing measure. They further resemble the opposing crescents which open & close the visible cycle. And together they trace a circle, like full moon at the head of the cycle. The bull sustains this iconography from Lascaux (as shown in my paper below, V₁) to 'the abduction of Europa' & beyond – Zeus adopting the form of a white bull with a black patch between its horns to seduce the princess (white like the moon, black like the two dark nights separating the crescents).

[D] Large cats facing one another (with telltale crescentine tails) represented the lunar arcs, both because they climb trees & sport spots. The branches of a tree or bush adapt nicely as figurative phase 'offshoots' from the individual trunk or stem of a single lunar cycle (*cf*, the Burning Bush, with phases alight, yet their 'fire' mysteriously never consumes the plant). Initially the large cat was spotted, representing the accumulated phases in each opposing arc. The Mayan jaguar (possibly like the leopards at Çatalhöyük & Tarquinia) also occasionally appears black, further reflecting the two comparably rare dark nights. Lion-gates perpetuate the significance of a portal into a lunar-governed confine or culture devoted to the calendrical refinement of celestial measure.

[E] The horse may initially have represented individual phases before symbolizing focal phases (*cf.* V1, *Lascaux Measures*, pp2–4), & ultimately lunar quarters (V10, pp26–9).

[F] White, the emblematic colour of lunar waxing – mounting milk of the progressively pregnant goddess (*see* Venus of Laussel: V10, pp 12 & 17) – later became proprietary to the seven empirically identifiable focal phases: opposing crescents, opposed half-moons, twin full moons & first waning phase (V10, p49).

[G] Empirically unidentifiable phases were characterized as leprous (Moses: Exodus 4:6); unclean ‘animals’ (Noah: V10, pp52/3); or dappled (*cf.* Archimedes’ Cattle of Helios puzzle: V10, p49).

[H] An erection signified ‘rising’ as far back as the Shaft Scene at Lascaux (V1, pp 4 & 7).

[J] Red, the emblematic colour of blood, death & dying (*cf.* ochre), characterized the phases of the waning arc or their theophanies (*eg.* red-head Set).

[K] The bird represented concave phases, because its outstretched wings were no longer identifiable in the outline of more swollen convex phases. The white bird (*eg.* the dove in Genesis 8:6–12; *see* V10, p53) signified waxing concave phases. The birdman’s erect penis at Lascaux depicted waxing half-moon, the terminal waxing ‘bird’ phase (V1, p7).

[L] The vulture embodied both waxing & waning concave phases, its dark feathers symbolizing night, with white-headed specimens associated with waxing phases, & red-headed ones with waning. The vulture, moreover, accommodated the crucial aspects of ‘flight’ & ‘decay’ which each lunar phase manifests.

[M] The turtle (on whose back the world was said to rest) resembles the ‘great half-moon’ outlining the crown of the ‘lunation compass’ (*see* V7, p20) composed of the convex phases (nights 10–22). The Hellenistic-Egyptian sobriquet, Hermes Trismegistus – held by Mediaeval Neo-Platonists to have been the author of the *Corpus Hermeticum* & preceptor of a suspected *prisca theologia* – cleverly embodied the same ‘great half-moon’ (or great Thoth) in a remarkable transliteral rebus (V7, pp24/5).

[N] The headless man represented lapsed phases (*cf.* Gobekli; & the ten decapitated men on the Narmer Palette). The practice of skeletal decapitation presumably arose from this association, given that individual lunar phases clearly returned to life after *their* ‘beheading’ (possibly instilling hope that the practice would ensure the return or transcendence of the deceased as well, following comparable dismemberment).

[O] The boar with its menacing tusks, represented the crescents which, like the boar, were closest to the ground of all visible phases. Its notoriety for killing gods in ancient myth, generally during winter (*eg.* Tammuz, Adonis, Attis *et al*), accords with the death of the lunation at its ‘coldest’ (‘least light’ giving little heat). Its ferocity also accords with the avenging aspect of the waxing crescent in Egyptian myth – Horus (the theophany of waxing crescent) rising to avenge the death of his father Osiris (theophany of waning crescent) at the hands of his abominable uncle Set (first waning phase, blamed for the ultimate demise of the lunation, by initiating the waning arc). The Shaft Scene at Lascaux employed an image of a rhinoceros to represent waning crescent (V1, p7).

[P] The ibex introduced the generative tetrad (nights 29, 1, 2 & 3) with its backward-leaning horns implying “behind appearances” – as in ‘the underworld’ (during the dark nights between crescents). See V10, pp29/30 for a detailed explanation.

[Q] Twin goddesses personify the two dark nights (giving rise to the female figurines with two heads). Dogs rest beneath their throne tending the flock of departed phases. In Hellenic myth the ‘twin’ dogs, Orthrus & Cerberus, bear two & three heads respectively, in accordance with the three days & two nights of the dark interval (V10, p31). The underworld serpent – extrapolated from the serpentine path of the visible lunation through its monthly meander on high – represented ‘renewal’ both in the shedding of its old skin (or preceding lunation), & in early myths, as the captor of the mother goddess responsible for impregnating her with the new lunation, before devouring her.

[R] The trident likewise stood as a symbol of the dark interval, with its three tines & two spaces according with the three days (daylight epitomizing ‘visibility’, like concrete tines) & two dark nights (during which there is an absence of visible phases, reflected in the two spaces within the trident). It is ideally encountered inverted (cf, Gobekli) in the manner in which Poseidon strikes the earth to produce his floods. Poseidon, like Set, embodied the theophany of the first waning phase (thus ruler of the terrestrial sea which ultimately consumes the moon), precipitating the submergence of the lunation into the underworld. His trident presages this lunar confinement between visible cycles .

[S] The Homeric myth of Thrinacia alluded not to Sicily, but the lunation envisioned as a triangle in the celestial sea, with three prominent phases as its terminal vertices: both crescents & fullest moon (nights 3, 16 & 29). Needless to add, the two dark nights host the sole phases in the lunation which remain completely submerged. The only visible phases that never appear during daylight are the twin full moons which rise with the setting of the sun & set at its rise. All other visible phases frequently appear during the daytime, as though partially submerged in a celestial sea.

[T] Another Hellenic personification of ‘lunar islands’ occurs in the name of Dionysus, intimating “two islands” (δύο = *dio* + νησί = *nisi*; cf, Mela-nesia). The two islands, in this respect, arise from the recognition that the opposing arcs, minus the full moons, comprise distinct outcroppings in the celestial sea. All the phases of the waxing arc (nights 3–14), like all those of its waning counterpart (17–29), appear partly submerged, save for the full moons which separate the island arcs.

[U] The giant, which emerges in the historical era, represented an extended ‘great year’ interval (his long hair intimating ‘lengthy reckoning’). Measure of time in the Babylonian & Egyptian Empires relied on separate lunar & solar calendars, which had to be periodically rationalized over protracted intervals, with intercalary additions or subtractions. These extended intervals were symbolized by synthetic creatures.

The Phoenix interval, for example, occasioned the incineration or subtraction of a single day every 500 calendar years, from the Egyptian solar calendar of 365 days. This was required to bring their solar calendar back into line with the observational lunar measure of 309 lunations (or ‘25-year Apis cycle’ comprising 9124.9516 days). Twenty-five Egyptian calendar years extended 9125 days, exceeding the ‘25-year Apis cycle’ by .0484 days, a difference which accumulated an entire day after 20 Apis cycles (or 500 years). Thus the

myth of the Egyptian 'bird', recorded by Herodotus, involves the death by fire & rebirth from ash, of the fabled Phoenix every 500 years (*ie*, the subtraction of a day from the 500th solar measure to facilitate its consequent realignment with the sacred lunar measure, thereby *reviving* the sacred Phoenix great-year cycle).

[V] Sacrificial animals represented intercalary days, required to periodically rationalize observational lunar measures with mathematical solar calendars. The focal basis of 'ancient time measure' was the lunar cycle, which appears to have been continuously observed & recorded as far back as the Palaeolithic Period. The problem confronting ancient man arose from attempts to rationalize lunar measure with the solar cycle.

Over time, the concept of the 'great year' gave rise to numerous extended cycles, all of which required intercalary adjustment at their terminus. These include 3-year, 8-year, 11-year, 18.6-year, 19-year, 25-year, 49-year, 70-year, 76-year, 304-year, 350-year & 500-year measures, among others. The Egyptians considered the five days added to their 360-day solar measure as sacred or sacrificial days. These five days dedicated to five different deities were held to reside outside the calendar, 'a sacrifice of time' preceding the resumption of the successive 360-day cycle (comprising twelve 30-day months).

Deities were the embodiment or theophanies of lunar phases, while animals each represented a different lunar measure. With the revolutionary introduction of the first lunisolar calendar in history – the variable-month eight-year calendar, requiring the addition of only a single day every eight years – the need for 'animal sacrifice' was considerably reduced. The 'variable month' refers to alternate months of 29 & 30 days.

Increasingly, heirs to 'ancient traditions which invoked animal sacrifice' lost sight of the allegorical significance behind this injunction, unwittingly perpetuating mistakenly literal holocausts of helpless sheep & cows in propitiation to a misplaced deity.

[W] The introduction of the revolutionary variable-month calendar (with alternate months of 29 & 30 days) occasioned the need for a revision of the symbol for the terminal phase in the lunation, waning crescent. Adam represented the 29-day male month while Eve incorporated an extra rib (or crescent) comprising the 30-day female month. In Hellenic myth, Hades, theophany of waning crescent (personifying "the underworld"), acquired a secondary identity as Pluto (or "wealthy") in accumulating the extra measure. As waning crescent was the seventh of the focal phases, the epithet "resting on the seventh day" also accommodated the prospect of counting waning crescent twice, once as night 29 & subsequently as night 30.

V. REFERENCES

The continuous observance of the lunar model throughout antiquity has been expanded upon in other freely accessible studies abstracted from my four books on ancient iconography, including:

PALÆOLITHIC

1. *Lascaux Measures: A Review of the Symbolism of Palæolithic Parietal Figures*
[<http://archive.org/details/LascauxMeasures>]

NEOLITHIC

2. *The Dawn of Procreation* [<http://archive.org/details/TheDawnOfProcreation>]

EGYPTIAN

3. *The Lunar Context of the Hekat Fractions*
[<http://archive.org/details/TheLunarContextOfTheHekatFractions>]

BIBLICAL

4. *Noah by the Numbers: Calendrical Clues in the Flood*
[<http://archive.org/details/NoahByTheNumbers>]
5. *The Levitical 49-year Jubilee Calendar*
[<http://archive.org/details/TheLevitical49-yearJubileeCalendar>]
6. *Unresolved Anachronism in the Books of Moses: Greek Roots in the Pentateuch*
[<https://archive.org/details/Anachronism>]

HELLENIC

7. *Instructions for Restoring the Ancient Wisdom: A Primer of the Pythagorean Practicum*
[<http://archive.org/details/InstructionsForRestoringTheAncientWisdom>]
8. *Winter Solstice in the Ancient Observation of Metonic Cycle*
[<https://archive.org/details/MetonicSolstice>]

MAYAN

9. *Mayan Long Count Deciphered*
[<http://archive.org/details/MayanLongCountDeciphered>]

SUMMARY

10. *The Lunar Basis of Myth & Symbol*
[<https://archive.org/details/TheLunarBasisOfMythAndSymbol>]

While only the last of my four books on the topic, remains in print (order below):
Myth as Math: Calendrical Significance in the Mosaic Census of the Sons of Israel (2007)
Nick Drumbolis